

## **REMARKS**

The Office Action mailed July 17, 2008 was received and reviewed. Each of claims 1, 2, 4, 13, 14, and 16 stand rejected. Claim 1 is currently amended. Reconsideration of the above-identified application in view of the following remarks is respectfully requested.

### **Rejections based on 35 U.S.C. § 103(a)**

#### **A.) Applicable Authority**

The basic requirements of a *prima facie* case of obviousness are summarized in MPEP §2143 through §2143.03. In order “[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success [in combining the references]. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)”. See MPEP §2143. The Supreme Court in *Graham v. John Deere* counseled that an obviousness determination is made by identifying: the scope and content of the prior art; the level of ordinary skill in the prior art; the differences between the claimed invention and prior art references; and secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). To support a finding of obviousness, the initial burden is on the Office to apply the framework outlined in *Graham* and to provide some reason, or suggestions or motivation found either in the prior art references themselves or in the knowledge generally

available to one of ordinary skill in the art, to modify the prior art reference or to combine prior art reference teachings to produce the claimed invention. *See, Application of Bergel*, 292 F. 2d 955, 956-957 (1961).

Recently, the Supreme Court elaborated, at pages 13-14 of the *KSR* opinion, that “it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references]; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the [patent application].” *KSR v. Teleflex*, 127 S. Ct. 1727 (2007). Further, in establishing a prima facie case of obviousness, the initial burden is placed on the Examiner. “To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 USPQ 972, 972 (Bd. Pat. App. & Inter. 1985).” *Id.* See also MPEP §706.02(j) and §2142.

**B.) Obviousness Rejections Based on U.S. Patent No. 5,129,084 to Kelly, Jr. et al. in View of “Resource containers: A new facility for resource management in server system” to Banga, et al.**

Claims 1, 4, 13 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,129,084 to Kelly, Jr. et al. (hereinafter the “Kelly reference”) in view of “Resource containers: A new facility for resource management in server system”, USENIX Association, Third Symposium on Operating Systems Design and Implementation, OSDI, 1999, to Banga, et al. (hereinafter the “Banga reference”). As the Kelly

reference and the Banga reference, whether taken alone or in combination, fail to teach or suggest all of the limitations of each of the rejected claims, a *prima facie* case of obviousness has not been established, and Applicants therefore respectfully traverse this rejection, as hereinafter set forth.

Independent claim 1, as amended herein, is generally directed toward a threaded computing environment having a plurality of contexts, each context capable of containing a queue, context settings, a context dictionary, and objects. A method is provided for allocating the access of threads to a user interface context. The method includes receiving a request to access the user interface context from a first thread, and determining whether the user interface context is presently being accessed by a second thread. Further, the method includes, if the user interface context is presently being accessed by a second thread, denying the request to access the user interface context received from the first thread, and if the user interface context is not presently being accessed by a second thread, allowing the request to access the user interface context received from the first thread. In addition, the method includes maintaining thread settings associated with threads, maintaining context settings in the user interface context, and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context.

By contrast, the Kelly reference is generally directed toward an object based operating system for a multitasking computer system. *See*, Kelly Reference, Abstract. The invention of the Kelly reference is directed toward a multifaceted access control system, which supports multiple levels of visibility, allowing objects to be operated on only by processes with the object's range of visibility. *See id.* at col. 2, ll. 17-21. Mutexes, or flags, govern access to each and every container directory, and the purpose of a mutex is to ensure that only one thread

accesses a particular resource at any one time. *See id.* at col. 7, ll. 26-32. Mutexes are used in the invention of the Kelly reference to synchronize access to container directories, object containers, linked lists of objects, and other types of data structures. *See id.* at col 7, ll. 40-43.

The Office Action states that the Kelly reference does not teach “maintaining context settings in the user interface context; and applying the context settings of the user interface context in place of the thread settings of any thread accessing the user interface context.” Office Action, p. 3. It is respectfully submitted that the Banga reference fails to cure the deficiencies of the Kelly reference, as the Banga reference also does not teach or suggest maintaining thread settings associated with threads, maintaining context settings in the user interface context, and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context.

The Banga reference is generally directed toward a new operating system abstraction, termed a resource container, which “separates the notion of a protection domain from that of a resource principal.” Banga reference, Abstract. “Resource containers enable fine-grained resource management in server systems and allow the development of robust servers, with simple and firm control over priority policies.” *Id.* Resources are defined in the Banga reference as CPU time devoted to an HTTP connection, and kernel objects such as sockets, protocol control blocks, and network buffers used by the connection. *See id.* at p. 49, col. 2, ¶ 1. “Resource containers allow an application to associate scheduling information with an activity, rather than with a thread or process,” which allows the scheduler to “provide resources directly to an activity, no matter how it might be mapped onto threads.” *Id.* at p. 50, col. 1, ¶ 2.

The Office Action states that “Banga teaches creating resource containers for classes of requests where attributes are applied to incoming requests that request those

resources.” Office Action at p. 3. It is respectfully submitted, however, that the Banga reference fails to teach or suggest, at least, applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context. The Office Action cites to page 52, column 2, and paragraphs 2-3 of the Banga reference in support of its rejection of independent claim 1. *See id.* This portion of the Banga reference describes restricting total CPU consumption of certain classes of requests by creating a container for each class, and setting its attributes appropriately, such as limiting the total CPU usage of that class. *See* Banga reference at p. 52, col. 2, ¶¶ 2-4. This provides a resource management mechanism that can be applied to one or more request at a time, being that the requests are put in various classes based on resources that are to be restricted, for example. *See id.*

As such, the Banga reference does not describe, nor does it teach or suggest, applying context settings and a context dictionary of a context in place of thread settings. The Banga reference describes assigning an attribute to a class of requests, but still does not teach overriding thread settings with context settings if the thread is accessing the user interface context. *See* Banga reference at p. 52, col. 2, ¶ 2. Instructing a request that it has limited total CPU usage is much different than overriding a complete set of settings associated with a thread, and replacing those settings and even a context dictionary with those associated with the context to eliminate exceptions caused by the thread while executing within the context. In the case of the Banga reference, requests are grouped into classes for the purpose of assigning an attribute to that group. *See id.* An entire set of settings of the requests, however, are not replaced by a set of settings of the context, including a context dictionary, which is disclosed in independent claim 1, and therefore, *a different method and process is described by the Banga reference.*

In addition, the *Banga reference does not mention at all a context dictionary*, wherein the *context dictionary is provided to the thread* for the thread to use while it is accessing that particular context. Independent claim 1 has been amended to include the context dictionary being placed within the thread while the thread operates within the context. Claim 1 has been amended to not only clarify what is placed within the thread settings while the thread is operating within the context, but also to further distinguish claim 1 from the Banga reference, as the Banga reference clearly does not disclose this feature of claim 1.

Further, it should be noted that FIG. 4 of the Banga reference illustrates more than one (two, in this case) thread within a “single independent activity.” Banga reference, p. 47, FIG. 4. As clearly set out in independent claim 1, in addition to ample support in the Specification, only one thread is allowed at one time to access a particular context, such as a user interface context. In claim 1, if a user interface context is already being accessed by a second thread, the first thread is denied access to the user interface context, at least until the second thread is no longer accessing that user interface context. As shown in FIG. 4 of the Banga reference, two threads are accessing a single independent activity and an application process at one time. Therefore, it is respectfully submitted that the combination of the Kelly and Banga references teach away from the invention of claim 1.

“A prior art reference must be considered in its entirety. . . including portions that would lead away from the claimed invention.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540. Here, the purpose of the invention of claim 1 is to allow only one thread at a time to access a particular context (e.g., user interface context), in addition to applying context settings and the context dictionary to the thread settings while that thread is accessing the context. The Banga reference, in direct contrast, actually teaches allowing more than one thread

to access an activity or application process at one time, as shown by FIG. 4. *See* Banga reference at FIG. 4. Therefore, it is respectfully submitted that the Banga reference does not teach or suggest if the user interface context is presently being accessed by a second thread, denying the request to access the user interface context received from the first thread, *but in fact, actually teaches the use of more than one thread accessing an activity or application process at one time*. *See id.* at FIG. 4. Therefore, the Banga reference directly teaches away from the invention of independent claim 1, and thus cannot be used as a § 103 reference.

As such, it is respectfully submitted that the combination of the Kelly reference and the Banga reference fails to teach or suggest all of the limitations of independent claim 1, as amended herein, and as such, a *prima facie* case of obviousness of claim 1 cannot be established utilizing the Kelly and Banga references. In addition, claim 13 contains similar features to those of independent claim 1, and so a *prima facie* case of obviousness of claim 13 also cannot be established utilizing the Kelly and Banga references. Accordingly, Applicants respectfully request withdrawal of the rejection of independent claims 1 and 13 under 35 U.S.C. §103(a). Independent claims 1 and 13 are believed to be in condition for allowance and such favorable action is respectfully requested.

Claims 4 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kelly reference, in view of the Banga reference. Each of claims 4 and 16 depends, either directly or indirectly, from independent claims 1 or 13 and, accordingly, it is respectfully submitted that the Kelly reference and the Banga reference, whether taken alone or in combination, fail to teach or suggest all of the limitations of these claims for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. §103(a) rejections of claims 4 and 16 is

respectfully requested. Each of claims 4 and 16 is believed to be in condition for allowance and such favorable action is respectfully requested.

**C.) Obviousness Rejections Based on the Kelly reference, in view of the Banga reference, in further view of U.S. Patent No. 6,293,712 to Coutant**

Claims 2 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Kelly reference, in view of the Banga reference, and in further in view of U.S. Patent No. 6,293,712 to Coutant (hereinafter the "Coutant reference"). Each of claims 2 and 14 depends, either directly or indirectly, from independent claims 1 or 13 and, accordingly, it is respectfully submitted that the Kelly reference, the Banga reference, and the Coutant reference, whether taken alone or in combination, fail to teach or suggest all of the limitations of these claims for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. § 103(a) rejections of claims 2 and 14 is respectfully requested. Each of claims 2 and 14 is believed to be in condition for allowance and such favorable action is respectfully requested.



### **CONCLUSION**

For at least the reasons stated above, claims 1, 2, 4, 13, 14, and 16 are now in condition for allowance. Applicants respectfully request withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 816-474-6550 or [emcfarland@shb.com](mailto:emcfarland@shb.com) (such communication via email is herein expressly granted) – to resolve the same. It is believed that no fee is due, however, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 19-2112.

Respectfully submitted,

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